

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** An aqueous ink-jet ink composition for printing on offset media comprising:

a) an ink colorant;

b) ~~an effective amount of~~ at least one surfactant; and

c) ~~an effective amount of~~ at least one aprotic polar solvent wherein the solvent is comprised of molecules having a molecular weight from 40 to 1500, said composition being configured to be ink-jetted on offset media to form an image without substantial coalescence.

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2. **(Currently Amended)** An aqueous ink-jet ink composition as in claim 1 further comprising ~~an effective amount of~~ a non-protic polar solvent.

3. **(Original)** An aqueous ink-jet ink composition as in claim 2 wherein the non-protic polar solvent is selected from the group consisting of N-ethyl acetamide, dimethyl propionamide, and combinations thereof.

4. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the aprotic polar solvent is an amide.

5. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the aprotic polar solvent is selected from the group consisting of formamides, methylformamides, methylacetamides, acetonitrile, dimethyl sulfoxide, sulfolane, dimethyl formamide, isopropyl formamide, dibutyl formamide, methyl acetamide,

dimethyl acetamide, ethylacetamide, isopropyl acetamide, propanenitrile, dimethyl imidazolidin-2-one, tetramethylurea, cyclohexanone, cyclopentanone, tetrahydrofuran, fluorad, acetyl ethanolamine, methyl propionamide, dimethyl propionamide, isopropyl propionamide, ethyl propionamide, diethyl propionamide, ethyl butanamide, propyl butanamide, butyl butanamide, and combinations thereof.

6. **(Original)** *An aqueous ink-jet ink composition as in claim 1 wherein the aprotic polar solvent is present at from 5% to 40% by weight.*

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7. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the surfactant is present at from 1% to 10% by weight.

8. **(Original)** An aqueous ink-jet ink composition as in claim 7 wherein the surfactant is an ionic surfactant.

9. **(Original)** An aqueous ink-jet ink composition as in claim 7 wherein the surfactant is a non-ionic surfactant.

10. **(Original)** An aqueous ink-jet ink composition as in claim 7 wherein the surfactant is selected from the group consisting of ethoxylated octylphenols, alkyl phenoxy poly(ethyleneoxy)ethanols, silicone glycol copolymers, polyalkylene oxide-modified polydimethylsiloxanes, ethoxylated tetramethyl decyldiols, secondary alcohol ethoxylates, ethoxylated trimethylnonanols, polyoxyethylene

ethers, ethylene oxide/propylene oxide copolymers, fluorosurfactants, and combinations thereof.

11. **(Currently Amended)** An aqueous ink-jet ink composition as in claim 1 further comprising ~~an effective amount of~~ a second co-surfactant.

12. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the aprotic polar solvent is from 5 to 20 Debye (D).

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13. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the ink colorant is one or more dyes wherein the total amount of dye present is from 2% to 6% by weight.

14. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the ink colorant is one or more pigments wherein the total amount of pigment present is from 2% to 6% by weight.

15. **(Original)** An aqueous ink-jet ink composition as in claim 1 wherein the ink colorant is one or more macro-molecular chromophore wherein the total amount of macro-molecular chromophore present is from 2% to 6% by weight.

16. **(Currently Amended)** An aqueous ink-jet ink composition as in claim 1 having two ~~polar~~-aprotic polar solvents present in the composition.

17. **(Curr ntly Amended)** An aqueous ink-jet ink composition for printing on offset media comprising:

- a) from 2% to 6% of an ink colorant by weight;
- b) from 1% to 10% of surfactant;
- c) from 5% to 40% of aprotic polar solvent comprised of molecules having molecular weights from 40 to 1500; and
- d) from 1% to 40% of non-aprotic polar solvent comprised of molecules having molecular weights from 40 to 1500, said composition being configured to be ink-jetted on offset media to form an image without substantial coalescence.

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18. **(Original)** An aqueous ink-jet ink composition as in claim 17 wherein the surfactant is a non-ionic surfactant.

19. **(Original)** An aqueous ink-jet ink composition as in claim 17 wherein the aprotic polar solvent has a polarity value from 5 to 20 Debye (D).

20. **(Original)** An aqueous ink-jet ink composition as in claim 17 wherein the ink colorant is comprised of macro-molecular chromophores.

21. **(New)** An aqueous ink-jet system for printing on offset media comprising:

- a) coated offset media; and
- b) an aqueous ink-jet ink composition including:
 - i) at least one ink colorant;

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ii) at least one surfactant; and

iii) at least one aprotic polar solvent wherein the solvent is comprised of molecules having a molecular weight from 40 to 1500, said composition being configured to be ink-jetted on the offset media to form an image.

22. **(New)** An aqueous ink-jet system as in claim 21 wherein the aqueous ink-jet ink composition further comprises a non-protic polar solvent.

23. **(New)** An aqueous ink-jet system as in claim 21 wherein the aprotic polar solvent is selected from the group consisting of formamides, methylformamides, methylacetamides, acetonitrile, dimethyl sulfoxide, sulfolane, dimethyl formamide, isopropyl formamide, dibutyl formamide, methyl acetamide, dimethyl acetamide, ethylacetamide, isopropyl acetamide, propanenitrile, dimethyl imidazolidin-2-one, tetramethylurea, cyclohexanone, cyclopentanone, tetrahydrofuran, fluorad, acetyl ethanolamine, methyl propionamide, dimethyl propionamide, isopropyl propionamide, ethyl propionamide, diethyl propionamide, ethyl butanamide, propyl butanamide, butyl butanamide, and combinations thereof.

24. **(New)** An aqueous ink-jet system as in claim 21 wherein the composition includes the aprotic polar solvent at from 5% to 40% by weight, the surfactant at from 1% to 10% by weight, and the ink colorant at from 2% to 6% by weight.

25. **(New)** *An aqueous ink-jet system as in claim 21 wherein the ink colorant is selected from the group consisting of a dye, a pigment, a macro-molecular chromophore, and combinations thereof.*

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